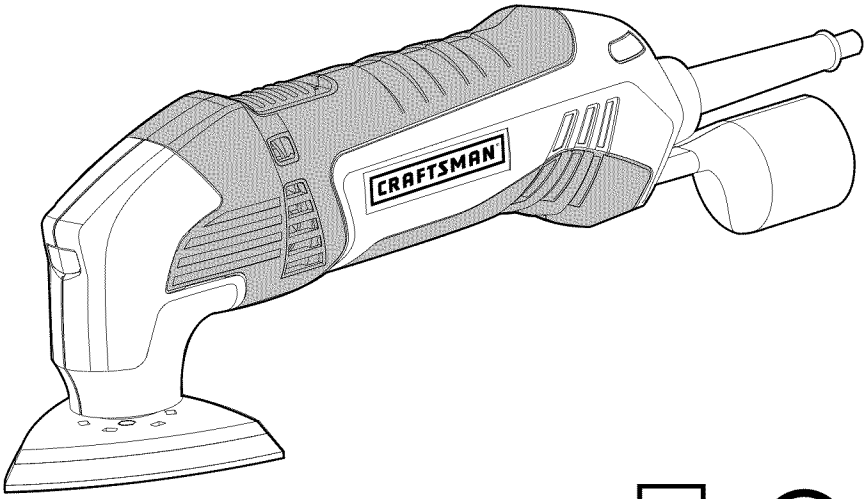
Operator's Manual

CRAFTSMAN®

2.0 Amp Variable Speed Multi-Tool

Model No. 320. 23465



⚠ WARNING: To reduce the risk of injury, the user must read and understand the Operator's Manual before using this product.

- WARRANTY
- SAFETY
- UNPACKING
- DESCRIPTION
- OPERATION
- MAINTENANCE
- TROUBLESHOOTING
- ESPANÕL

Sears Brands Management Corporation Hoffman Estates, IL 60179 U.S.A.
www.craftsman.com

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CRAFTSMAN ONE YEAR LIMITED WARRANTY

FOR ONE YEAR from the date of purchase, this product is warranted against any defects in material or workmanship. With proof of purchase, defective product will be replaced free of charge.

For warranty coverage details to obtain free replacement, visit the web site: www.craftsman.com

This warranty does not cover expendable parts such as accessory blades, sandpaper or rasps.

This warranty is void if this product is ever used while providing commercial services or if rented to another person.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears Brands Management Corporation, Hoffman Estates, IL 60179

⚠ **WARNING:** Some dust created by using power tools contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

SAVE THESE INSTRUCTIONS!

READ ALL INSTRUCTIONS!

This Multi-Tool has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers.

The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

⚠ **WARNING**: Be sure to read and understand all safety instructions in this manual, including all safety alert symbols, such as "**DANGER**," "**WARNING**," and "**CAUTION**," before using this Multi-Tool. Failure to follow all instructions listed in this manual may result in electric shock, fire and/or serious personal injury.

SYMBOL MEANNING

⚠ **SAFETY ALERT SYMBOL:** Indicates **DANGER, WARNING, OR CAUTION.** May be used in conjunction with other symbols or pictographs.

⚠ **DANGER:** Failure to obey this safety warning will result in death or serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.

⚠ **WARNING:** Failure to obey this safety warning can result in death or serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.

⚠ **CAUTION:** Failure to obey this safety warning may result in death or serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric, shock and personal injury.

⚠ **WARNING:** To ensure safety and reliability, all repairs should be performed at a Sears Parts & Repair Service Center.

DAMAGE PREVENTION AND INFORMATION MESSAGES

These inform the user of important information and/or instructions that could lead to equipment or other property damage if they are not followed. Each message is preceded by the word "**NOTE**" as in the example below.

NOTE: Equipment and/or property damage may result if these instructions are not followed.

The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields, available at Sears Stores. Always use eye protection that is marked to comply with ANSI Z87.1.

Some of these following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
~	Alternating Current	Type of current
⎓	Direct Current	Type or a characteristic of current
n_0	No Load Speed	Rotational speed, at no load
⧈	Class II Construction	Double-insulated construction
.../min	Per Minute	Revolutions, strokes, surface speed, orbits, etc., per minute
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear safety goggles or safety glasses with side shields and a full face shield when operating this product.
	Safety Alert	Precautions that involve your safety.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	Hot Surface	To reduce the risk of injury or damage, avoid contact with any hot surface.

SAFETY INSTRUCTIONS

⚠ **WARNING:** Be sure to read and understand all instructions in this manual before using the Multi-Tool. Failure to follow all instructions may result in electric shock, fire and/or serious personal injury.

⚠ **WARNING:** Do not attempt to operate this tool until you have thoroughly read all instructions, safety rules, and warnings. Failure to comply with them can result in fire, electric shock, or serious personal injury. Save the manual and refer to it frequently.

GENERAL POWER TOOL SAFETY WARNINGS

⚠ **WARNING: Read all safety warnings and instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious personal injury.

Save all warnings and instructions for future reference.

The term "power tool" in all of warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

WORK AREA SAFETY

- **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

- **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.

- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.
- **NOTE:** The term "residual current device (RCD)" maybe replaced by the term "ground fault circuit interrupter (GFCI)" or "earth leakage circuit breaker (ELCB)".

PERSONAL SAFETY

- **Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- **Use personal protective equipment. Always wear eye protection.** Protective equipment, such as dust mask, non-skid safety shoes, hard hat, or hearing protection, used for appropriate conditions will reduce personal injuries.
- **Prevent unintentional starting. Ensure that the switch is in the OFF position before connecting to power source and/or battery, picking up, or carrying the tool.** Carrying power tools with your finger on the switch or energizing in power tools that have the switch on invites accidents.
- **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
- **If devices are provided for the connection of dust extraction and collection facilities, ensure that these are connected and properly used.** Use of these devices can reduce dust-related hazards.

POWER TOOL USE AND CARE

- **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and more safely at the rate for which it was designed..

- **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from the power source and/or the battery from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- **Use the power tool, accessories, tool bits, etc., in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

⚠ **WARNING:** When using power tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.

⚠ **WARNING:** The operation of any tool can result in foreign objects being propelled into your eyes, resulting in severe eye damage. When operating power tool, always wear safety goggles or safety glasses with side shields and a full face shield when needed.

⚠ **WARNING:** If any parts are missing, do not operate the tool until the missing parts have been replaced. Doing so could result in serious personal injury.

SERVICE SAFETY

- **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
- **If any part of this Multi-Tool is missing or should break, bend**, or fail in any way; or should any electrical component fail to perform properly: shut off the power switch and remove the Multi-Tool plug from the power source and have the missing, damaged, or failed parts replaced before resuming operation.
- **Tool service** must be performed only at a Sears Parts & Repair Service Center. Service or maintenance performed by unqualified personnel could result in a risk of injury.

- **Use only identical replacement parts when servicing a tool. Follow the instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES FOR MULTI-TOOL

- Never use your Multi-Tool to perform sanding or separating operations in wet conditions.
- Always wear eye protection.
- Always wear ear protection during extended periods of operation.
- Always wear a dust mask if the operation is dusty.
- Wear protective gloves when changing application accessories. Application accessories become hot after prolonged usage.
- Always inspect for and remove all nails, screws, staples, etc. before sanding.
- Always check walls and ceilings to avoid hidden power cables and pipes. A metal detector (available separately) is very helpful for this purpose.
- Whenever possible, use clamping devices or other suitable means to secure the workpiece to a firm surface.
- When working with the machine, always hold it firmly with both hands and provide for a secure stance. The power tool is guided more securely with both hands.
- Keep your workplace clean. Blends of materials are particularly dangerous. Dust from light alloys can burn or explode.
- Avoid unintentionally switching on the tool. Ensure that the on/off switch is in the OFF position before connecting the tool to the power source.
- Do not scrape wet or dampened materials (e.g. wallpaper) or on moist surfaces. Penetration of water into the machine increases the risk of an electric shock.
- Do not treat the surface to be worked with solvent-containing fluids. Materials being heated by the scraping can cause toxic vapors to develop.
- Exercise extreme caution when handling the scraper accessory. The accessory is very sharp; danger of injury.
- Use only the original Craftsman accessories and the other accessories (Fein® Multi-Master accessories) available for this Multi-Tool, no others. FEIN ®Multi-Master is registered trademarks of FEIN Power Tools Inc.
- Only use application accessories in good condition. Do not use them if they are torn or worn.

- Do not restart a cutting operation in the workpiece. To resume a cutting operation: while keeping the tool from contacting the workpiece, allow the tool reach full speed and then carefully guide the cutting accessory into the cut.
- Keep your hands away from the cutting area. Do not reach under the material being cut.
- Hold power tools by their insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.

WARNING: Wear ear protection. Exposure to noise can cause hearing loss.

WARNING: To avoid injury, hold the tool by the insulated gripping surfaces only. If the tool contacts hidden wiring or its own cord, exposed metal parts of the tool could shock the operator and cause serious injury. Make sure that hidden electrical wiring, water pipes, or other hazards are not in the cutting path.

UNPACKING

WARNING: Your Multi-Tool should never be connected to the power source when you are assembling parts, making adjustments, installing or removing blades, cleaning, or when it is not in use. Disconnecting the Multi-Tool will prevent accidental starting, which could cause serious personal injury.

When unpacking the box, do not discard any packing materials until all of the contents are accounted for:

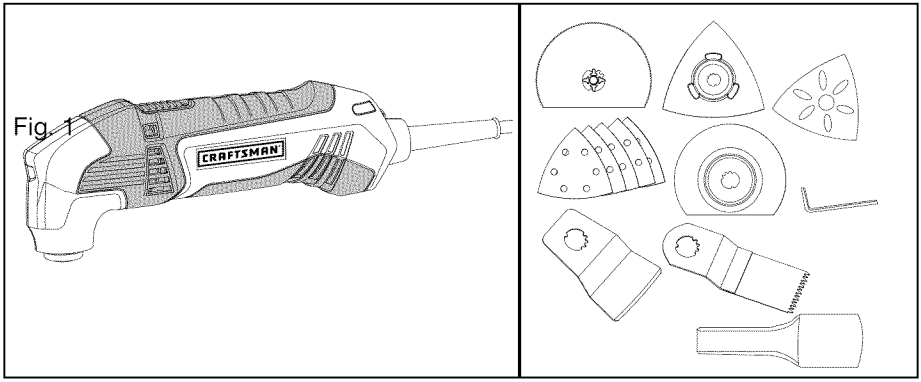
1. Carefully lift the Multi-Tool out of the carton and place on a stable, flat surface.
2. Open the color box to locate the following:
   - Multi-Tool
   - Circular Saw Blade
   - Flush Cut Blade
   - Carbide Triangular rasp
   - Carbide Circular Blade
   - Scraper Blade
   - Sanding Base Plate
   - 9 pieces Sandpaper (3pieces each of 60, 120, 180 grit)
   - Hex Key

- Vacuum Adapter
- Manual

3. Inspect the items carefully to make sure that no breakage or damage has occurred during shipping. If any of the items mentioned is missing, (refer to "PARTS LIST" illustration), return the Multi-Tool to your nearest Sears store to have the Multi-Tool replaced.

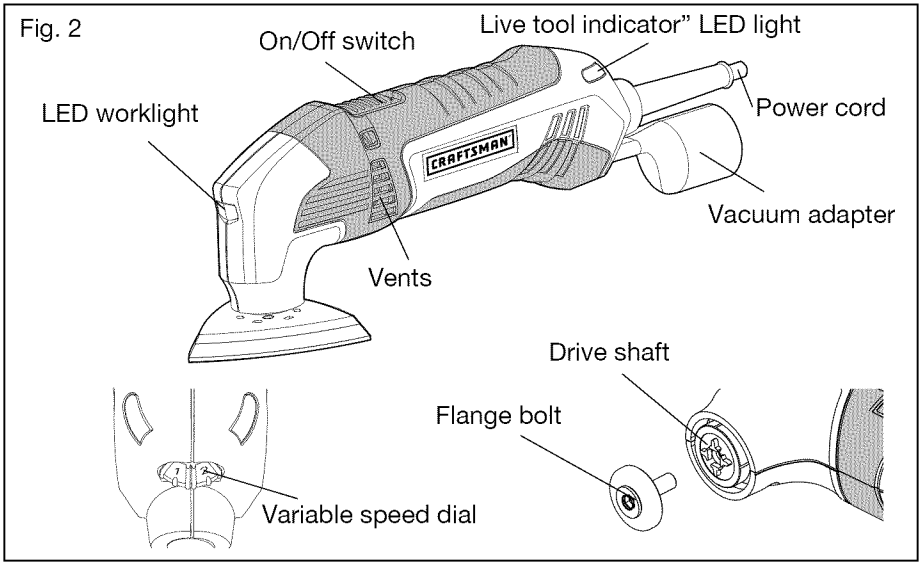
⚠ **WARNING:** If any part is broken or missing, do not attempt to assemble the Multi-Tool, plug in the power cord, or operate the Multi-Tool until the broken or missing part is replaced. Failure to do so could result in possible serious injury.

CARTON CONTENTS/LOOSE PARTS (Fig. 1)



DESCRIPTION

KNOW YOUR MULTI-TOOL (Fig. 2)



Before attempting to use this Multi-Tool, familiarize yourself with all of its operating features and safety requirements.

This Multi-Tool has the following features:

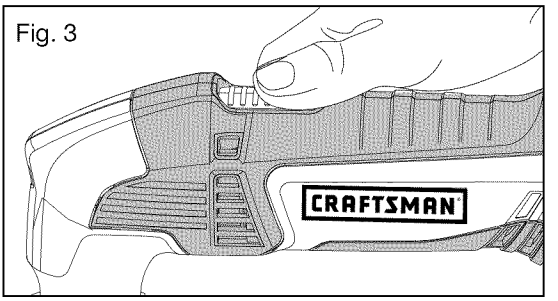
- A multifunction drive shaft system that allows the tool to be used for dry sanding of small surfaces, corners and edges, for scraping, for sawing thin steel sheet, wood and plastic by attaching different application tools supplied.
- 2.0 Amps, 11000 to 19000 oscillation per minute variable speed motor.
- Variable speed is controlled by the seed dail located on the back of the tool.
- LED worklight illuminates working area.
- "Live tool indicator" LED light shines green when the Multi-Tool is plugged into a power source.
- The vacuum adapter can improve dust extraction, when it is installed on the tool and connected with a dust-extraction system or a suitable vacuum cleaner.

PRODUCT SPECIFICATIONS	
Input	2.0Amps
Oscillation Rate	11000 to 19000/Min
Oscillation Angle	±1.4 degrees
Rating	120 volts, 60Hz AC
Weight	2.71 lbs (1.23 kg)

OPERATION

ON/OFF SWITCH (Fig. 3)

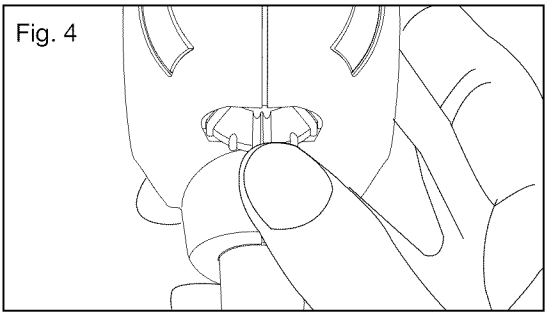
Fig. 3



1. Connect the power cord of your Multi-Tool to a standard household power outlet.
2. To turn the tool ON, push the on/off switch forward.
3. To turn the tool OFF, push the switch backward.

VARIABLE SPEED DIAL (Fig. 4)

Fig. 4



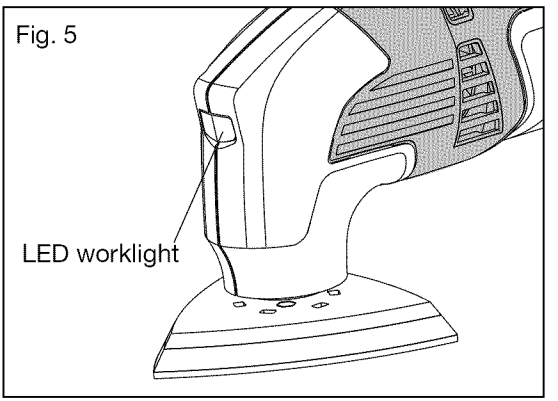
The variable speed feature of this Multi-Tool allows you to match the proper speed to the material being cut, sawed, scraped or sanded, enhancing the overall performance of your tool and helping to save the application accessory from undue wear.

1. The variable speed dial is used to adjust the speed of the application accessory.
2. Turn the dial to increase or decrease the speed of the tool. (Fig.4).
3. Position "1" selects the slowest speed and position "6" selects the fastest speed. Adjust the application accessory speed for optimum performance.

NOTE: Determine the optimum speed for by making a trial cut in a scrap piece of material.

LED WORKLIGHT (Fig. 5)

Fig. 5

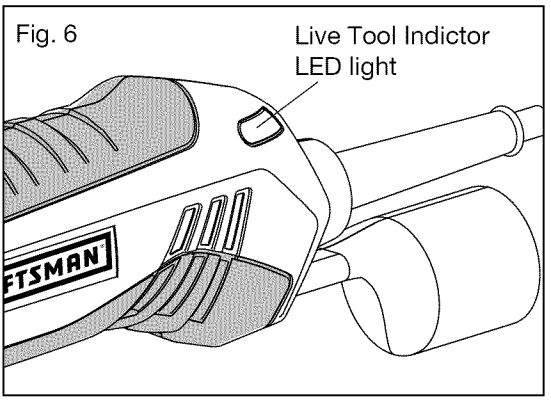


The LED worklight, located on the front of the tool, will illuminate when the ON/ OFF switch is in the forward (ON) position. This provides additional light on the surface of the workpiece for operation in lower-light conditions. The LED worklight will turn off when the switch is slid backwards (OFF).

LIVE TOOL INDICATOR LED LIGHT (Fig. 6)

Your Multi-Tool has a "live tool indicator" green LED light, located on the back of the tool. This light turns on automatically when the Multi-Tool is plugged into a power source.

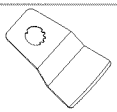
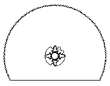
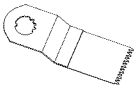
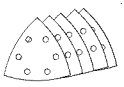
Fig. 6



ACCESSORY TOOLS

SELECTING THE APPLICATION ACCESSORY

⚠ **WARNING:** If any part is broken or missing, do not attempt to plug in the power cord or operate the tool until the broken or missing part is replaced. Failure to do so could result in possible serious injury.

ACCESSORY		MATERIALS
	Carbide Circular Blade	Grout, Plaster, Porous Concrete and Masonry
	Carbide Triangular Rasp	Hardened adhesives, Thinset, Wood, Masonry
	Scraper Blade	Paint & Varnish, Bonded Carpet, Soft Adhesives, Vinyl Flooring, wood and other floor coverings.
	Circular Saw Blade	Wood, Plastic, Drywall, Non-Ferrous Metals, thin Sheet Metal and other materials
	Flush Cut Blade	Wood, Plastic, Drywall, Soft Metals and other Materials
	Sanding Plate and Sandpaper	Bare or painted wood, plaster, and other surfaces, depending on sandpaper grit

ATTACHING THE ACCESSORY TOOL

⚠ **WARNING:** Failure to disconnect the tool from power source when assembling parts, making adjustments, or changing accessories could result in accidental starting causing possibly serious injury.

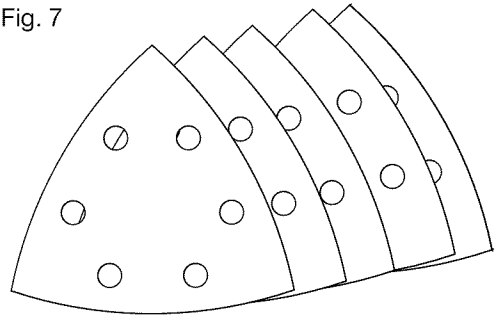
⚠ **CAUTION:** For all work or when changing accessory tools, always wear protective gloves. The sharp edges of the accessory tools will cause personal injury. Accessory tools can be very hot while working.

⚠ **WARNING:** Check that the accessory tools are correctly attached. Incorrect or insecurely fastened accessory tools can come loose during operation and cause a hazard.

⚠ **WARNING:** Do not attach the **circular saw blade, carbide circular blade, scraper blade, or flush cut blade** facing backwards, as operation in this position may cause serious injury.

NOTE: Replacement Craftsman accessories and additional Craftsman accessories are available at Sears and Craftsman retailers. Refer to the model numbers for purchase.

Fig. 7



SANDPAPER KIT (67655)

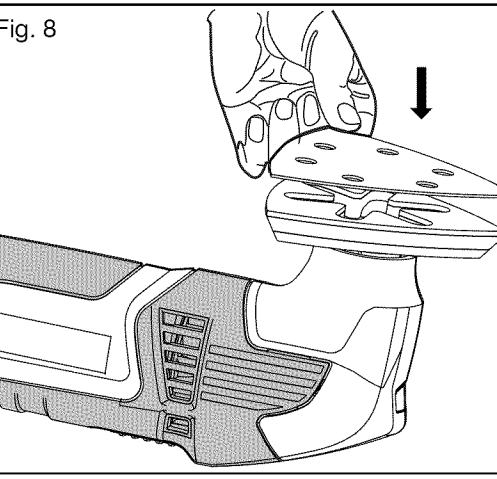
DESCRIPTION (Fig. 7)

- 24 pieces sandpaper (8 pieces each 60, 120 and 180 grit).
- Always apply to the compatible sanding plate (supplied with your Multi-Tool).
- Sandpaper kit is also compatible with the Fein® Multi-Master tool.

MOUNTING/CHANGING THE SANDPAPER (Fig. 8)

⚠ **WARNING:** Check that the sanding plate and sandpaper are correctly attached. An incorrect or insecurely fastened application tool can come loose during operation and cause a hazard.

Fig. 8



1. Follow the directions for **Attaching the Application Tool** to attach the sanding plate to the Multi-Tool.
2. Align the sandpaper with the sanding plate and use your hand to press it firmly onto the sanding plate.
3. Press the sandpaper firmly against a smooth surface for a short period, then switch on the tool. The burr will form a non-slip bond with the outer edge of the sandpaper felt. This will avoid premature wear.
4. If one point has become worn, pull off the sandpaper, turn it 120° and place it on the sanding plate again.

SANDING (Fig. 9)

⚠ **WARNING:** Do not touch the gear box after prolonged use; it could be very hot.

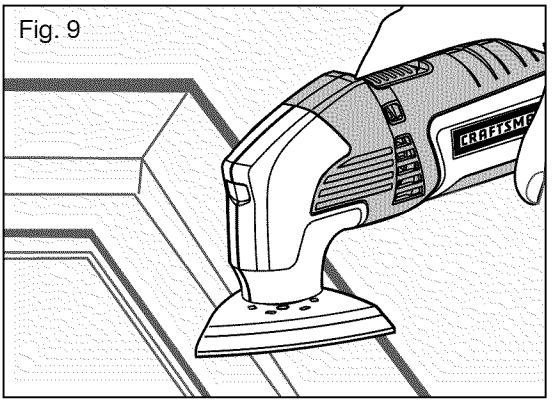


Fig. 9

- The removal rate and the sanding pattern are determined by the choice of sanding sheet and the work surface.
- Apply uniform sanding pressure to extend the life of the sanding sheets.
- Intensifying the sanding pressure does not lead to an increase of the sanding capacity, but instead it increases wear on the machine and the sanding sheet.
- Use only the tip or an edge of the sanding sheet for precise sanding of edges, corners and hard to reach areas.
- When selectively sanding on one spot, the sanding sheet can heat up considerably. Remove the tool from the surface periodically to permit the sanding sheet to cool down.
- A sanding sheet that has been used for metal should not be used for other materials.
- Use only original Craftsman sanding accessories.
- For sanding, always connect dust extraction.

1. For Rough sanding use 40-80 grit paper.
2. For Smooth sanding use 100-180 grit paper.
3. For Fine sanding use 220-320 girt paper.

SAWING WITH THE CIRCULAR SAW BLADE (67651)

DESCRIPTION (Fig. 10)

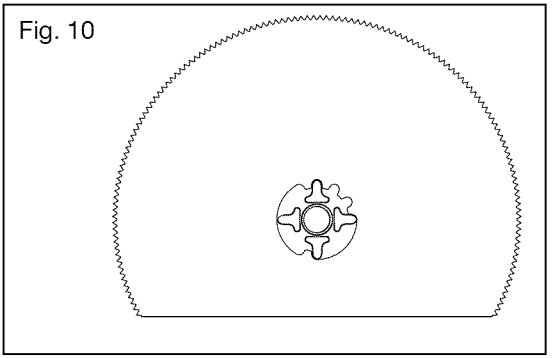


Fig. 10

- High speed steel circular cutting blade.
- Designed for cutting wood, plastic, drywall, nonferrous metals, thin sheet metal and other materials.
- The circular saw blade is also compatible with the Fein® Multi-Master tool.

TO INSTALL THE CIRCULAR SAW BLADE

⚠ **CAUTION:** Wear protective gloves.

⚠ **WARNING:** Use sharp, undamaged saw blades only. Deformed, blunt saw blades or saw blades that are otherwise damaged can break.

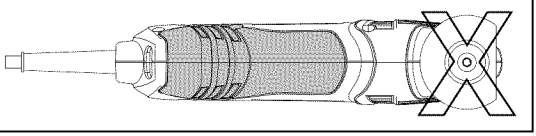
⚠ **WARNING:** When sawing light building materials, observe the precautions and the recommendations of the material suppliers.

⚠ **WARNING:** Plunge cuts may only be applied to soft materials, such as wood, gypsum plaster boards, etc.

⚠ **WARNING:** The sawing teeth are very sharp. Do not touch during mounting and application.

⚠ **WARNING:** Do not attach the circular saw blade facing backwards (Fig. 11), which may hurt the user.

Fig. 11



1. Disconnect the Multi-Tool from the power source.
2. Loosen the flange bolt with the hex key provided. (Fig. 12)
3. Ensure that the inner threads and the drive shaft are clean.
4. Align the grooves on the circular saw blade with the four raised ribs on the drive shaft; put the blade on the drive shaft. (Fig. 13)
5. With your gloved hand holding the blade, put on and tighten the flange bolt using the hex key.

Fig. 12

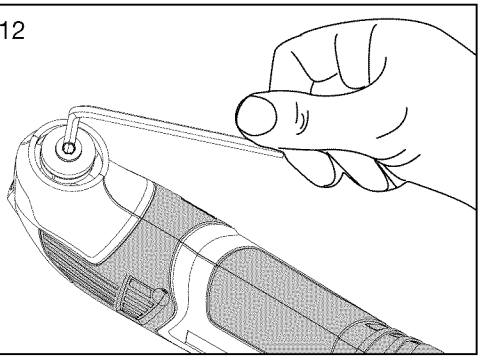
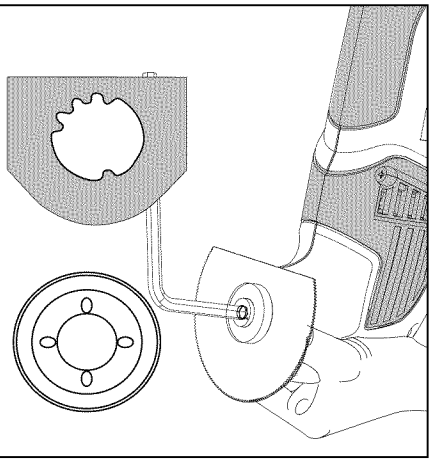
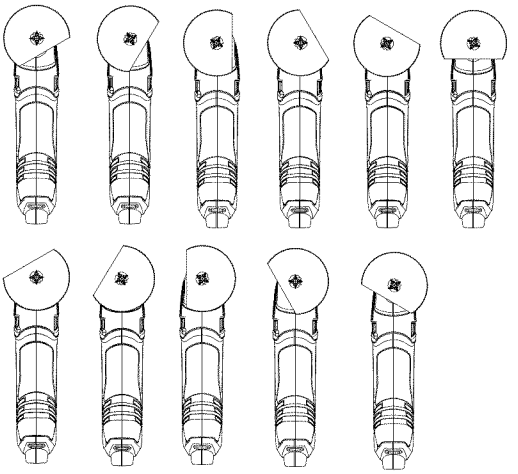


Fig. 13



NOTE: The ribs on the shaft and the grooves in the accessory tools permit a firm connection of the accessory tools in increments of 30° around the shaft (Fig. 14). Apply the accessory tool in the orientation appropriate to the task at hand.

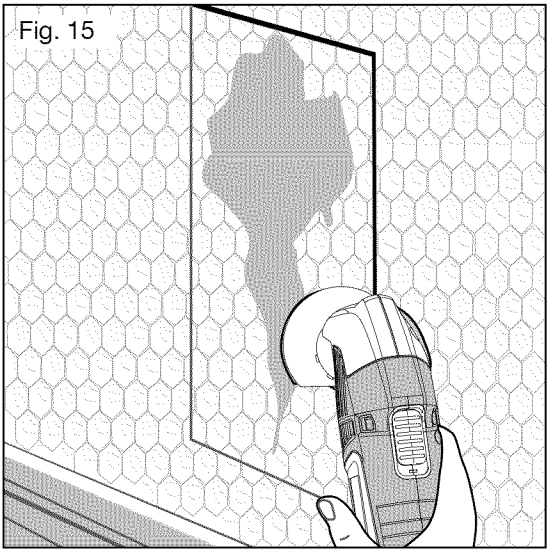
Fig. 14



CUTTING WITH THE CIRCULAR SAW BLADE (Fig. 15)

1. Connect the Multi-Tool to a power source.
2. Securely clamp the workpiece if necessary.
3. Draw the cutting lines on the workpiece.
4. Apply the blade to the workpiece.
5. Switch on the tool and apply appropriate pressure to make the cut.

Fig. 15



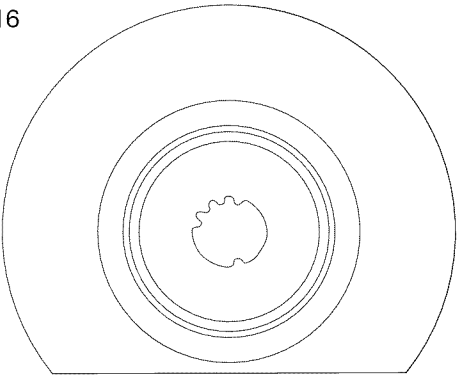
CARBIDE CIRCULAR BLADE (67650)

DESCRIPTION (Fig. 16)

The Carbide Circular Blade is designed to cut out the grout around wall tiles. It can also be used to cut plaster, porous concrete and masonry.

- Carbide-tipped, circular grout disc.
- Designed for grout, plaster, masonry or porous concrete removal around the wall tiles.

Fig. 16



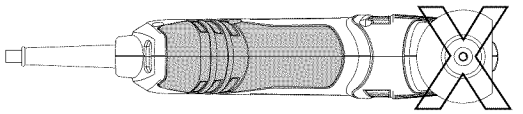
- The carbide circular blade is also compatible with the Fein® Multi-Master.

TO INSTALL THE CARBIDE CIRCULAR BLADE

⚠ **CAUTION:** Wear protective gloves.

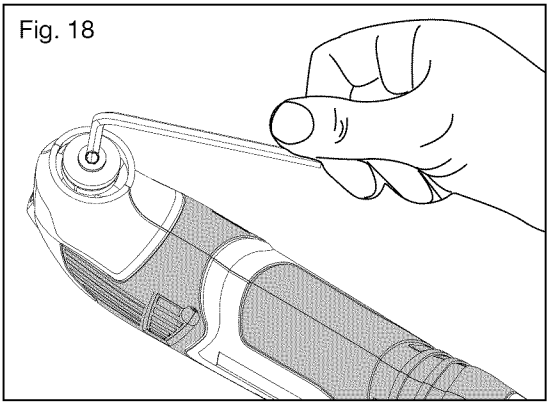
⚠ **WARNING:** Do not attach the carbide circular blade facing backwards (Fig. 17), which may hurt the user.

Fig. 17



1. Disconnect the Multi-Tool from the power source.
2. Loosen the flange bolt with the hex key provided. (Fig. 18)
3. Ensure that the inner threads and the drive shaft are clean.

Fig. 18



4. Align the grooves on the carbide circular blade with the four raised ribs on the drive shaft; put the carbide circular blade onto the drive shaft. (Fig. 19)
5. With your gloved hand holding the carbide circular blade, put on and tighten the flange bolt using the hex key.

NOTE: The ribs on the shaft and the grooves in the accessory tools permit a firm connection of the accessory tools in increments of 30° around the shaft (Fig. 20). Apply the accessory tool in the orientation appropriate to the task at hand.

Fig. 19

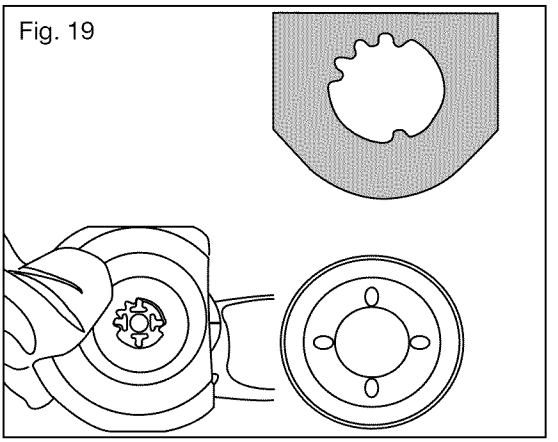
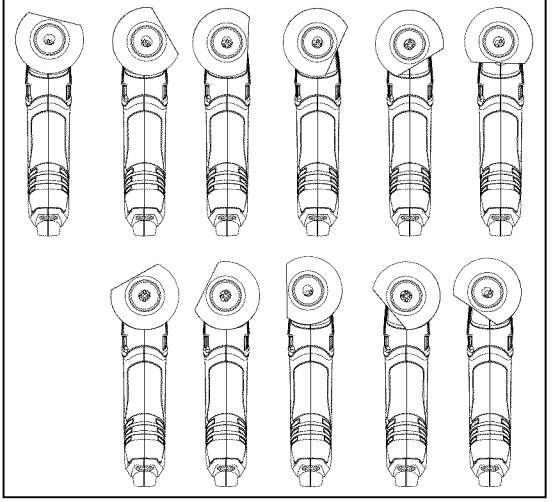


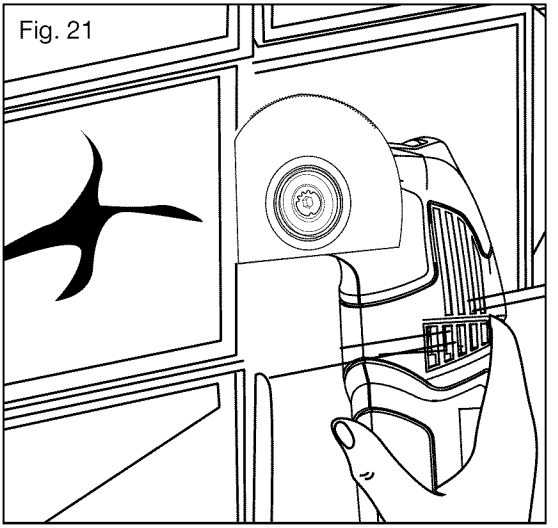
Fig. 20



CUTTING WITH THE CARBIDE CIRCULAR BLADE (Fig. 21)

1. Connect the Multi-Tool to a power source.
2. Draw the cutting lines on the workpiece.
3. Place the carbide circular blade against the workpiece at a 90° angle.
4. Switch on the tool, cut out the grout around the wall tile, then use a hand chisel to remove the tile.

Fig. 21



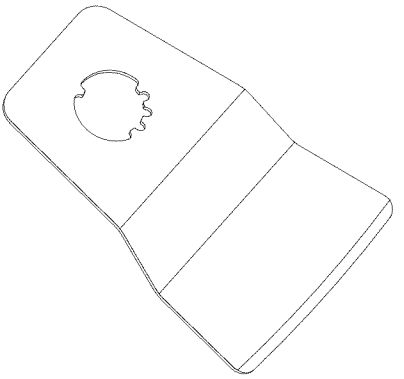
NOTE: When separating wall tiles, take into consideration that the accessory tools wear heavily when used for longer periods of time.

SCRAPER BLADE (67652)

DESCRIPTION (Fig. 22)

- Steel scraping blade designed for paint & varnish, bonded carpet, soft adhesives, vinyl flooring, wood and other floor coverings.
- Scraper blade is also compatible with the Fein® Multi-Master tool.

Fig. 22



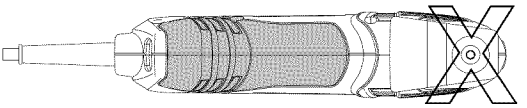
TO INSTALL THE SCRAPER BLADE

⚠ **CAUTION:** Wear protective gloves.

⚠ **CAUTION:** For all work or when changing accessory tool, always wear protective gloves. The sharp edges of the accessory tool will cause personal injury. Accessory tool can be very hot while working.

⚠ **WARNING:** Do not attach the scraper blade facing backwards (Fig. 13), which may hurt the user.

Fig. 23



⚠ **WARNING:** Check that the accessory tool is correctly attached. Incorrect or insecurely fastened accessory tool can come loose during operation and cause a hazard.

1. Disconnect the Multi-Tool from the power source.
2. Loosen the flange bolt with the hex key provided. (Fig. 24)
3. Ensure that the inner threads and the drive shaft are clean.
4. Align the grooves on the scraper blade with the four raised ribs on the drive shaft; put the blade onto the drive shaft. (Fig. 25)
5. With your gloved hand holding the blade, put on and tighten the flange bolt using the hex key.

NOTE: The ribs on the shaft and the grooves in the accessory tools permit a firm connection of the accessory tools in increments of 30° around the shaft (Fig. 26). Apply the accessory tool in the orientation appropriate to the task at hand.

Fig. 24

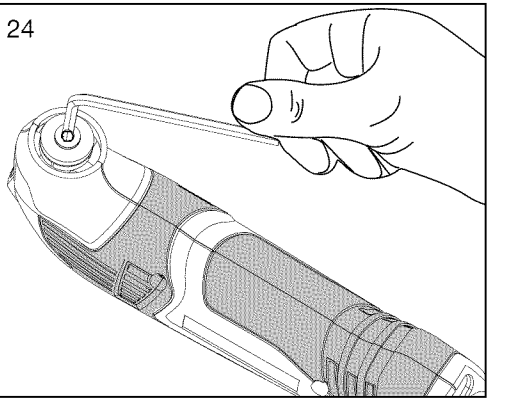


Fig. 25

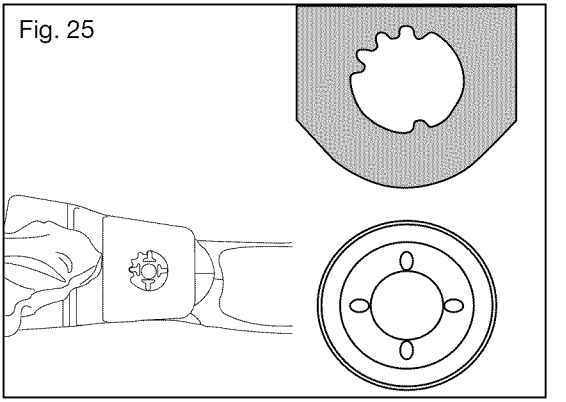
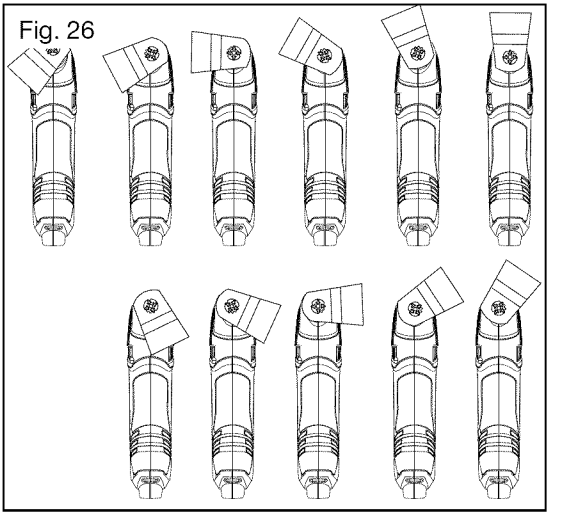


Fig. 26



USING THE SCRAPER BLADE (Fig. 27)

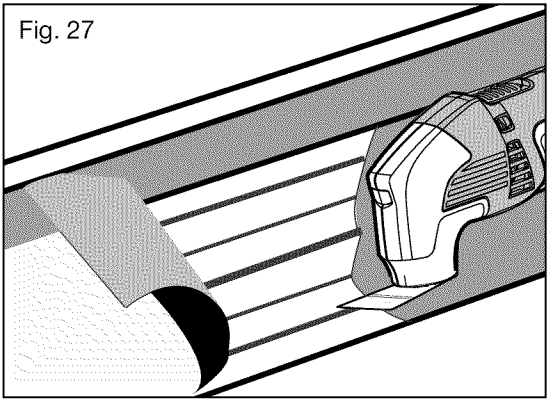


Fig. 27

1. Connect the Multi-Tool to a power source.
2. To scrape, put the tool on the workpiece at a flat angle (not more than 20°), and apply only light pressure so as to not cut into the surface.
3. To cut and remove carpet, place the Scraper Blade vertically on the workpiece, switch the tool on, and cut the carpet. Then place the scraper blade between the carpet and the floor to the coverings and adhesive residue off.

CARBIDE TRIANGULAR RASP (67654)

DESCRIPTION (Fig. 28)

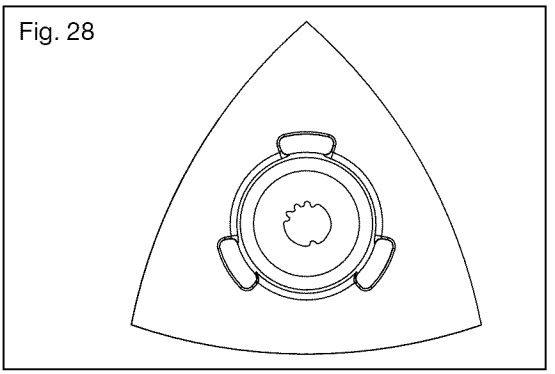


Fig. 28

- Carbide tipped triangular grout rasp.
- Designed for grout, masonry, thinset, wood and removal of hardened adhesives on the wall tiles.
- Triangular rasp is also compatible with the Fein® Multi-Master tool.

TO INSTALL THE CARBIDE TRIANGULAR RASP

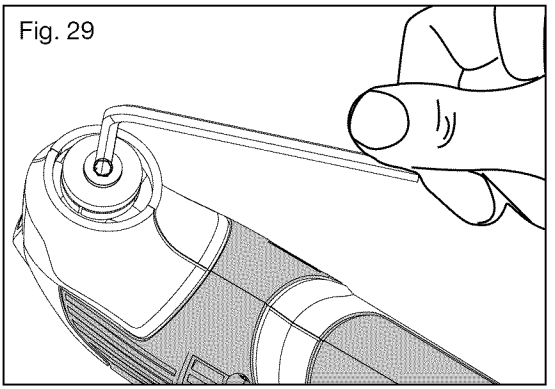


Fig. 29

⚠ **CAUTION:** Wear protective gloves.

1. Disconnect the Multi-Tool from the power source.
2. Loosen the flange bolt with the hex key provided. (Fig. 29)
3. Ensure that the inner threads and the drive shaft are clean.

4. Align the grooves on the carbide triangular rasp with the four raised ribs on the drive shaft; put the disc onto the drive shaft. (Fig. 30)
5. With your gloved hand holding the carbide triangular rasp put on and tighten the flange bolt using the hex key.

NOTE: The ribs on the shaft and the grooves in the accessory tools permit a firm connection of the accessory tools in increments of 30° around the shaft (Fig. 31). Apply the accessory tool in the orientation appropriate to the task at hand.

Fig. 30

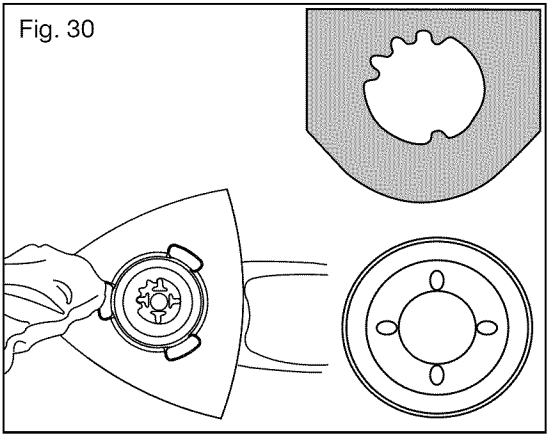
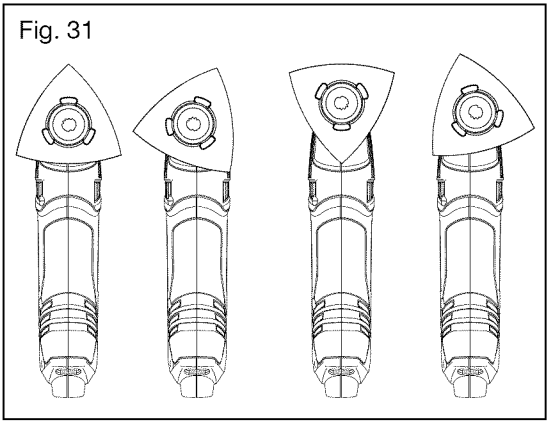


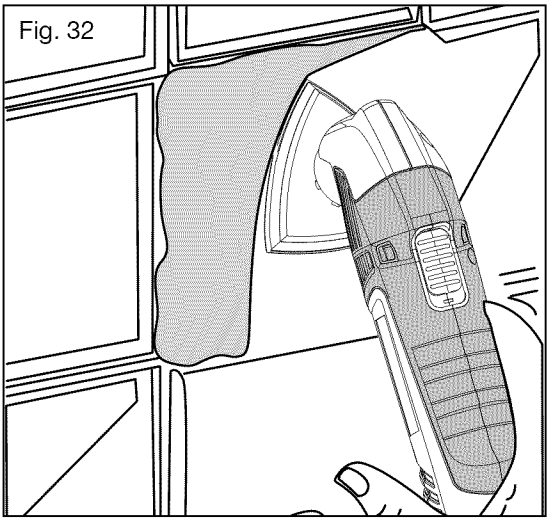
Fig. 31



USING THE CARBIDE TRIANGLUAR RASP (Fig. 32)

1. Connect the Multi-Tool to a power source.
2. Put the rasp flat against the workpiece and apply appropriate pressure.
3. Switch on the tool, remove any hardened adhesive or grout on the surface of the wall tiles.

Fig. 32

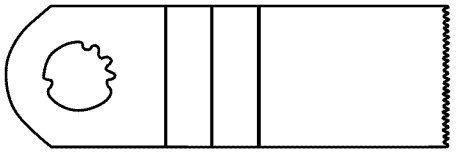


FLUSH CUT BLADE (67653)

DESCRIPTION (Fig. 33)

- Bi-metal, straight-edge, flush-cut blade.
- Designed for cutting wood, plastic, drywall, soft metal and other materials.

Fig. 33



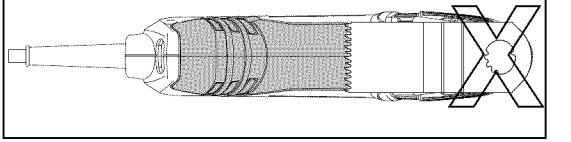
- Can plunge and saw with a slight pendulum action in wood.
- Flush Cut blade is also compatible with the Fein® Multi-Master tool.

TO INSTALL THE FLUSH CUT BLADE

⚠ **CAUTION:** Wear protective gloves.

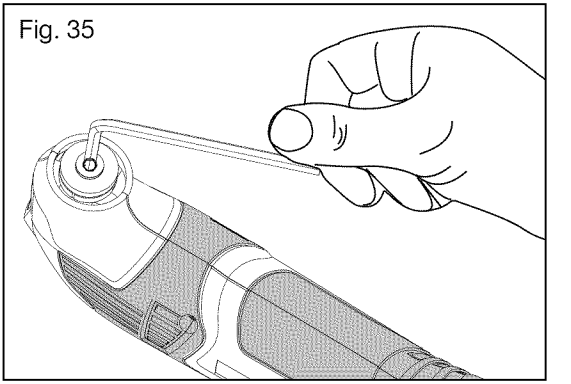
⚠ **WARNING:** Do not attach the flush-cut blade facing backwards (Fig. 34), which may hurt the user.

Fig. 34



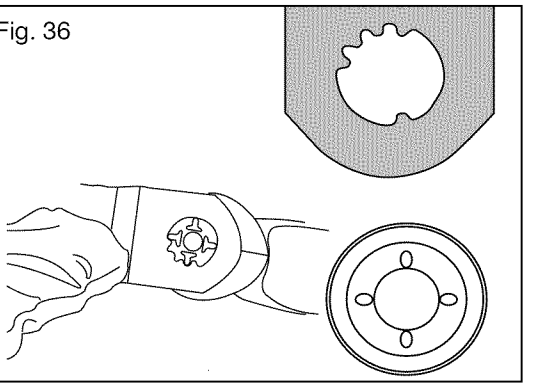
1. Disconnect the Multi-Tool from the power source.
2. Loosen the flange bolt with the hex key provided. (Fig. 35)
3. Ensure that the inner threads and the drive shaft are clean.

Fig. 35



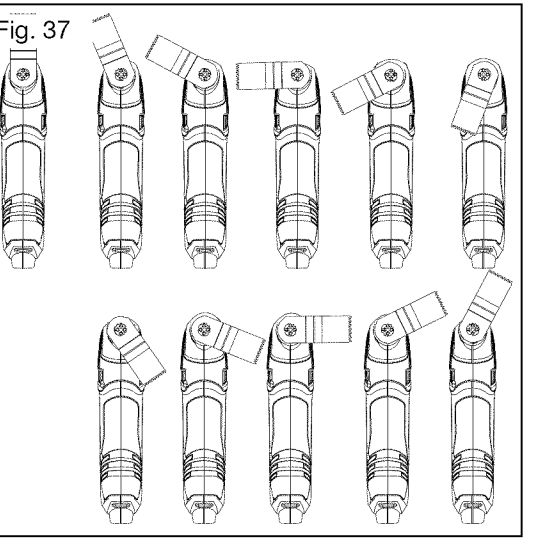
4. Align the grooves on the flush-cut blade with the four raised ribs on the drive shaft; put the blade onto the drive shaft. (Fig. 36)
5. With your gloved hand holding the blade, put on and tighten the flange bolt using the hex key.

Fig. 36



NOTE: The ribs on the shaft and the grooves in the accessory tools permit a firm connection of the accessory tools in increments of 30° around the shaft (Fig. 37). Apply the accessory tool in the orientation appropriate to the task at hand.

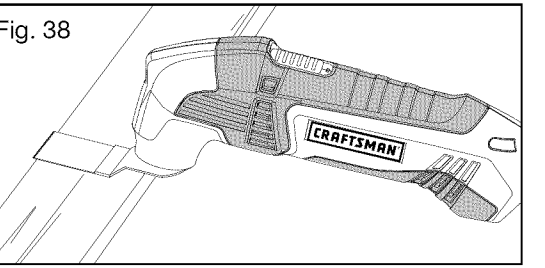
Fig. 37



USING THE FLUSH CUT BLADE (Fig. 38)

1. Connect the Multi-Tool to a power source.
2. Clamp the workpiece securely.
3. Draw the cutting lines on the workpiece.
4. Put the blade along the line.
5. Switch on the tool, and apply with appropriate pressure until the blade cuts to the depth needed according to the scale on the blade.

Fig. 38



Multi-Tool Accessories Available Separately
Craftsman Sandpaper kit (17374)
Craftsman Detail Cutting Blade (17375)
Craftsman Rough Cut Blade (17376)
Check at sears.com or your Craftsman retailer for additional accessories.

Craftsman Carbide circular blade (67650)
Craftsman Circular saw blade (67651)
Craftsman Scraper blade (67652)
Craftsman Flush cut blade (67653)
Craftsman Carbide triangular rasp (67654)
Craftsman 24pc. Sandpaper kit (67655)

MAINTENANCE

GENERAL MAINTENANCE

⚠ **WARNING:** When servicing, use only identical Craftsman replacement parts. Use of any other parts may create a hazard or cause product damage. To ensure safety and reliability, all repairs should be performed by a qualified service technician at a Craftsman Parts & Repair Service Center

⚠ **WARNING:** For your safety, always turn off the switch and unplug the Multi-Tool motor from the power source before performing any maintenance or cleaning.

⚠ **WARNING:** Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

MULTI-TOOL MAINTENANCE

Periodic maintenance of your Multi-Tool allows for long life and trouble-free operation.

A cleaning and maintenance schedule should be maintained.

As a common-sense and preventive maintenance practice, follow these recommended steps:

- Inspect the accessory tool; check the rim for wear or damage.
- Keep the ventilation slots of the motor clean to prevent overheating of the motor.
- Use a soft clean and damp cloth to wipe the tool housing. A mild detergent can be used but nothing like alcohol, petrol or other cleaning agent. Never use caustic agents to clean plastic parts.

⚠ **WARNING:** When changing an accessory tool immediately after operation, allow the accessory tool to cool before removing it to avoid possible burning.

⚠ **WARNING:** Keep the tool's air vents unclogged and clean at all times.

⚠ **WARNING:** Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. to come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

⚠ **WARNING:** Water must never come into the tool.

LUBRICATION

All of the bearings in this tool are lubricated with a sufficient amount of high-grade lubricant for the life of the tool under normal operating conditions. Therefore, no further lubrication is required.

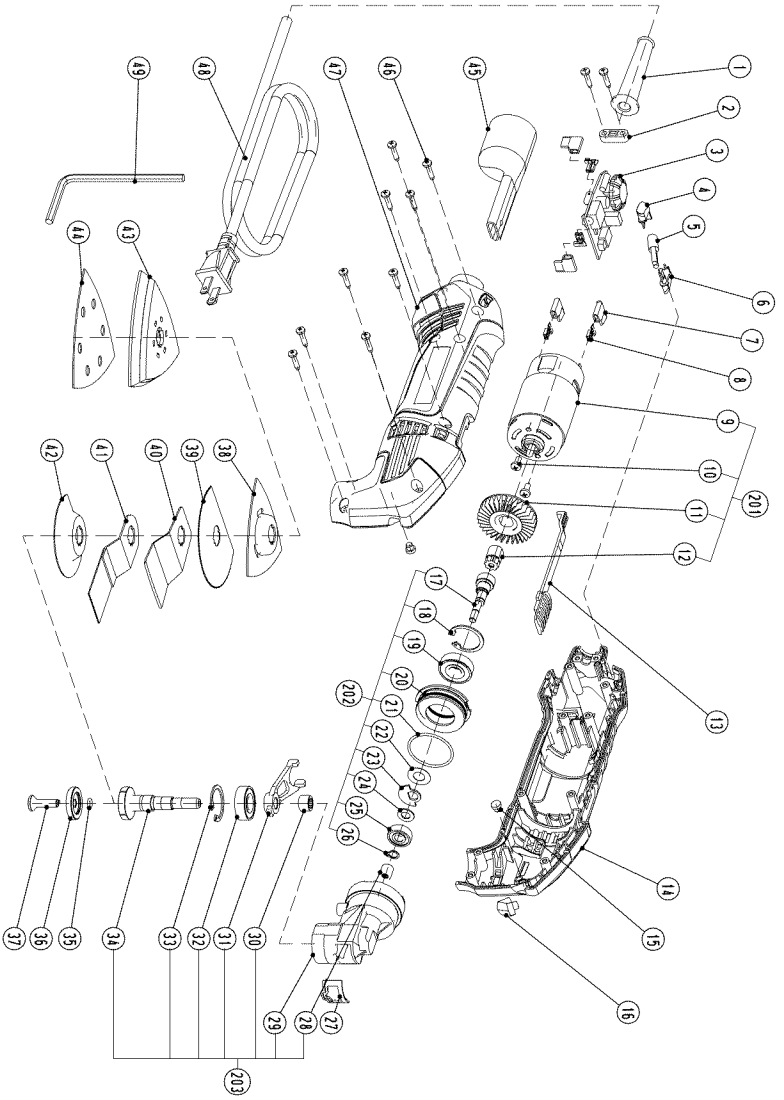
TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
Motor overheating	Be sure cooling vents are free from dust and obstacles.	Clean, clear vents. Do not cover with hand during operation.

EXPLOWED VIEW

2.0A Variable Speed Multi-Tool MODEL NUMBER 320.23465

The Model Number will be found on the Nameplate attached to the handle of the Multi-Tool. Always mention the Model Number when ordering parts for this tool.



PARTS LIST

2.0A Variable Speed Multi-Tool MODEL NUMBER 320.23465

The Model Number will be found on the Nameplate attached to the handle of the Multi-Tool. Always mention the Model Number when ordering parts for this tool.

No	Part No	Part Name	QTY
1	3121045000	Cord Guard	1
2	3120234000	Cord Anchorage	1
3	4890690000	PCB Assembly	1
4	3125549000	Right Cover	1
5	4540017000	Power Supply Indicator	1
6	3125548000	Left Cover	1
7	4930008000	Sleeve	4
8	4930038000	Receptacle	4
201	2823032000	Motor ASSY	1
9	2730165000	DC Motor	1
10	5620038000	Screw	2
11	3125477000	Fan	1
12	3402451000	Connector	1
13	3125478000	Switch Actuator	1
14	3321074000	Left Housing	1
15	3121003000	Rubber Insert	2
16	3125531000	LED Cover	1
202	2823033000	Shaft ASSY	1
17	3551619000	Eccentric Shaft	1
18	5660020000	Circlips For Hole	1
19	5700048000	Ball Bearing	1
20	3551459000	Bearing Support	1
21	5690180000	O ring	1
22	5650216000	Plain Washer	1
23	3704682000	Counterweight	1

No	Part No	Part Name	QTY
24	3700352000	Washer	1
25	5700205000	Ball Bearing	1
26	5660144000	Circlips For Shaft	1
27	3125185000	Dust Cover	1
203	2823034000	Drive Housing ASSY	1
28	5700022000	Needle Bearing	1
29	3421144000	Drive Housing	1
30	5700053000	Needle Bearing	1
31	3421179000	Lever	1
32	5700048000	Ball Bearing	1
33	5660020000	Circlips For Hole	1
34	3551577000	Spindle	1
35	5690018000	O Ring	1
36	5650300000	Washer	1
37	5620445000	Screw	1
38	3810456000	Rasper	1
39	3810454000	Blade	1
40	3810453000	Scraper	1
41	3810504000	BIM Plunge Cut Saw Blade	1
42	3810452000	Grinding Wheel	1
43	3320814000	Base Plate Set	1
44	2820442000	Sanding Paper	1
45	3124550000	Vacuum Adapter	1
46	5610024000	Tapping Screw	11
47	3321075000	Right Housing	1
48	4810002000	Power Cord & Plug	1
49	5680169000	Inner Hexagon Spanner	1

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